Village of Barrington
1999 Water Quality Report

Who should read this report?

Do you drink water? If your answer is "yes" read on.

The United States Environmental Protection Agency (USEPA) requires all Communities to provide to their consumers a Consumer Confidence Report on the quality of their systems drinking water. This report summarizes the quality of water that we provided during the last year. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

The Village of Barrington water supply serves fewer than 10,000 persons and had no water quality or monitoring violations during 1999. Because of this, the Village received a Method of Delivery (MOD) waiver. The Village will not be required to provide a report to all water consumers as last year. This yearís report will be available upon request.

If you have any questions about this report or concerning your water system, please contact David W. Schmidt, Superintendent of Utility Operations 847/304-3358 or John Heinz, Director of Public Works 847/381-7903.

Regulations

In order to ensure that tap water is safe to drink, USEPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

In addition to the informational section of the Water Quality Report, we have included for your review several tables. The tables will give you a better picture of the contaminants that were detected in your water and the contaminants that were tested for, but not detected.

Sources of drinking water

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the surface of the land or through the ground, it can dissolve naturally occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Possible contaminants:

Inorganic contaminants,
such as salts and metals,which can be naturally occurring or result from urban stormwater runoff, industrial,or domestic wastewater discharges, oil and gas production, mining or farming;

Organisms, pesticides, and herbicides,
which may come from a variety of sources such as agriculture, urban stormwater runoff and residential uses;

Organic chemical contaminant,
including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems;

Radioactive contaminants,
which may be naturally occurring or be the result of oil and gas production and mining activities;

Microbial contaminants,
such as viruses and bacteria,which may come from sewage treatment plants, septic systems, agricultural livestock operations and wildlife.

Barrington's H_2O History

Barrington's municipal water supply system began in 1898 with the drilling of well No. 1 southwest of the intersection of Hough and Station Streets. As the Village grew, additional wells were drilled to satisfy the increase in water demand. Well No. 2,drilled in 1929,is located in the Station St.Pumping Station. Both of these are cased through the glacial drift and have open boreholes in the upper part of the bedrock. Wells No. 3 and No. 4,drilled in 1964 and 1973 respectively, are located along Bryant Avenue north of Northwest Highway. Both of these secure groundwater from sand and gravel in the glacial drift above the bedrock.

Safe Drinking Water Hotline

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

We are advised by the IEPA that some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants,people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/CDC (Center for Disease Control) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Water Facts

- Due to favorable monitoring history, aquifer characteristics,and inventory of potential sources of contamination, our water supply was issued a vulnerability waiver renewal. No monitoring for Volatile Organic Chemicals (VOCs) and Synthetic Organic Chemicals (SOCs) is required between January 1,1999, and December 31, 2001,nor was it required for the three years prior.
- For the seventh consecutive year, the Village of Barrington has been recognized for achieving the highest standard of compliance for fluoride addition in accordance with the Fluoridation Act.
- More than 6,000 separate tests were performed on water samples from our system.
- Population served - 9,538.
- Metered customers - 3,956.
- 75 miles of watermain and 804 Fire hydrants.
- Water production - 1.702 (ave. million gallons/day)

1999 Water Quality Data

Contaminant (units)	Typical Source of Contaminant	MCLG	MCL	Level Found	Range of Detection	Violation	Date of Sample
RADIOACTIVE CONTAMINANTS							
ALPHA EMITTERS (pCi/l)	Erosion of natural deposits	0	15	3.0	nd-3.000	0	12/14/98
INORGANIC CONTAMINANTS							
BARIUM (ppm)	Discharge of drilling wastes;discharge from metal refineries;erosion of natural deposits	2	2	0.093	0.061-0.093	0	4/28/98
COPPER (ppm)	Corrosion of household plumbing systems; erosion of natural deposits;leaching from wood preservatives	1.3	AL=1.3	1.360	5 exceeding AL	AL	
FLUORIDE (ppm)	Erosion of natural deposits; water additive that promotes strong teeth;discharge from fertilizer and aluminum factories	4	4	1.240	1.230-1.240	0	4/28/98
LEAD (ppb)	Corrosion of household plumbing systems; erosion of natural deposits	0	AL=15	19	8 exceeding AL	AL	
UNREGULATED CONTAMINANTS							
SULFATE (ppm)	Erosion of naturally occurring deposits	n/a	n/a	87.750	56.500-119.000	0	4/28/98
STATE-REGULATED CONTAMINANTS							
IRON (ppm)	Erosion of naturally occurring deposits	n/a	1000	1390.000	1120.000-1800.000	0	
MANGANESE (ppb)	Erosion of naturally occurring deposits	n/a	150	15.000	nd-15.000	0	4/28/98
SODIUM (ppm)	Erosion of naturally occurring deposits;used as water softener	n/a	n/a	35.900	27.400-35.900	0	4/28/98
ZINC (ppb)	Naturally occurring;discharge from metal facilities	n/a	5000	118	nd-118.000	0	4/28/98

Key:

Definitions of Terms

Maximum Contaminant Level Goal - MCLG:
The level of a contaminant in drinking water below which there is not known or expected risk to health.MCLGs allow for a margin of safety.

Maximum Contaminant Level - MCL:
The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible, using the best available treatment technology.

Level Found:
Represents an average of sample result data collected during the CCR calendar year. In some cases,it may represent a single sample if only one sample was collected.

Range of Detection:
Represents a range of individual sample results,from lowest to hightest that were collected during the CCR calendar year.

Action Level - AL:
The concentration of a contaminant,which,if exceeded,triggers treatment or other requirements that a water system must follow.

Treatment Technique - TT :
A required process intended to reduce the level of a contaminant in drinking water.

Abbreviations

nd – not detectable at testing limits
n/a – not applicable
ppm – parts per million or milligrams per liter
ppb – parts per billion or micrograms per liter
pCi/l— picocuries per liter, used to measure radioactivity
 # pos/mo— number of positive samples per month

Notes

In most cases,the **"Level Found"** column represents an average of sample result data collected during the Consumer Confidence Report (CCR) calendar year.

The **"Range of Detections"** column represents a range of individual sample results,from lowest to highest,that were collected during the CCR calendar year.

If a date appears in the **"Date of Sample"** column,the Illinois EPA requires monitoring for this contaminant less than once per year because the concentrations do not frequently change. If no date appears in the column, monitoring for this contaminant was conducted during the CCR calendar year.

Manganese

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more.

Zinc

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant and therefore monitoring is required.

About the Data

The Maximum Contaminant Level (MCL) for lead is 15 parts per billion (ppb) and 1.3 parts per million (ppm) for copper. When lead or copper exceed their Action levels (AL), some form of treatment is required, which the water system must follow. In the Water Quality Data chart, the number 19 listed in the "Level Found" column for lead and 1.360 listed for copper under "Inorganic Contaminants" represents the 90th % level found in (ppb) for lead and (ppm) for copper. The number of homes the IEPA requires the Village to test is 40. Of the 40 homes tested, 8 were found to exceed the AL of 15 ppb, while 5 were found to exceed the AL 1.3 ppm, as shown in the "Range of Detection" column.

Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population.Infants and children who drink water-containing lead in excess of the action level could experience delays in their physical or mental development.It is possible that lead levels at your home may be higher than at other homes in your community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, have your water tested.Also, flush your tap for 30 seconds to two minutes before using tap water. Additional information is available from the USEPA's Safe Drinking Water Hotline at 1-800-426-4791.

Copper

Copper is an essential nutrient, but some people who drink water-containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water-containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor.

Iron

This contaminant is not currently regulated by the USEPA. However, the state has set an MCL for this contaminant for supplies serving a population of 1,000 or more. Iron is not a health risk, but it does create aesthetic problems, such as giving water a metallic taste and causing stains on fixtures and clothing.

Sodium

There is not a state or federal MCL for Sodium. Monitoring is required to provide information to consumers and health officials that are concerned about intake due to dietary precautions. If you are on a sodium-restricted diet, you should consult a physician about the level of sodium in the water.

All residents are notified yearly of their water test results.

1999 NON-DETECTED Contaminants

The following table includes contaminants monitored for but **not detected (nd)** in the most recent Village samples. The Village is not required to report this information;however, monitoring has been done and has indicated that these contaminants were not present in the water supply. *(For "Date of Sample"note, see previous page.)*

Contaminant (units)	Typical Source of Contaminant	MCLG	MCL	Level Found	Date of Sample
MICROBIAL CONTAMINANTS					
Total Coliform Bacteria (# pos/mo)	Naturally present in the environment	0	>1	nd	
Fecal Coliform and E.Coli (# pos/mo)	Human and animal fecal waste	0	>1	nd	
RADIOACTIVE CONTAMINANTS					
Beta/Photon Emitters (pCi/l)	Decay of natural and man-made deposits	0	50	nd	12/14/98
INORGANIC CONTAMINANTS					
Antimony (ppb)	Discharge from petroleum refineries;fire retardants,ceramics, electronics;solder	6	6	nd	4/28/98
Arsenic (ppb)	Erosion of natural deposits;runoff from orchards;runoff from glass and electronics production wastes	n/a	50	nd	4/28/98
Beryllium (ppb)	Discharge from metal refineries and coal-burning factories;discharge from electrical,aerospace, and defense industries	4	4	nd	4/28/98
Cadmium (ppb)	Corrosion of galvanized pipes;erosion of natural deposits;discharge from metal refineries;runoff from waste batteries and paints	5	5	nd	4/28/98
Chromium (ppb)	Discharge from steel and pulp mills;erosion of natural deposits	100	100	nd	4/28/98
Cyanide (ppb)	Discharge from steel/metal factories;discharge from plastic and fertilizer factories	200	200	nd	4/28/98
Mercury (inorganic) (ppb)	Erosion of natural deposits;discharge from refineries and factories; runoff from landfills;runoff from cropland	2	2	nd	4/28/98
Nitrate (as Nitrogen) (ppb)	Runoff from fertilizer use;leaching from septic tanks,sewage;erosion of natural deposits	10	10	nd	
Nitrite (as Nitrogen) (ppm)	Runoff from fertilizer use;leaching from septic tanks,sewage;erosion of natural deposits	1	1	nd	
Selenium (ppb)	Discharge from petroleum and metal refineries;erosion of natural deposits;discharge from mines	50	50	nd	4/28/98
Thallium (ppb)	Leaching from ore-processing sites;discharge from electronics,glass, and drug factories	0.5	0.5	nd	4/28/98
VOLATILE ORGANIC CONTAMINANTS					
Benzene (ppb)	Discharge from factories;leaching from gas storage tanks and landfills	0	5	nd	10/10/1995
Carbon Tetrachloride (ppb)	Discharge from chemical plants and other industrial activities	0	5	nd	10/10/1995
Chlorobenzene (ppb)	Discharge from chemical and agricultural chemical factories	100	100	nd	10/10/1995
O-Dichlorobenzene (ppb)	Discharge from industrial chemical factories	600	600	nd	10/10/1995
P-Dichlorobenzene (ppb)	Discharge from industrial chemical factories	75	75	nd	10/10/1995
1,2-Dichloroethane	Discharge from industrial chemical factories	0	5	nd	10/10/1995
1,1-Dichloroethylene (ppb)	Discharge from industrial chemical factories	7	7	nd	10/10/1995
CIS-1.2-Dichloroethylene (ppb)	Discharge from industrial chemical factories	70	70	nd	10/10/1995
TRANS-1.2-Dichloroethylene (ppb)	Discharge from industrial chemical factories	100	100	nd	10/10/1995
Dichloromethane (ppb)	Discharge from pharmaceutical and chemical factories	0	5	nd	10/10/1995
1,2-Dichloropropane (ppb)	Discharge from industrial chemical factories	0	5	nd	10/10/1995
Ethylbenzene (ppb)	Discharge from petroleum refineries	700	700	nd	10/10/1995
Styrene (ppb)	Discharge from rubber and plastic factories;leaching from landfills	100	100	nd	10/10/1995
Tetrachloroethylene (ppb)	Discharge from factories and dry cleaners	0	5	nd	10/10/1995
1,2,4-Trichlorobenzene (ppb)	Discharge from textile-finishing factories	70	70	nd	10/10/1995
1,1,1-Trichloroethane (ppb)	Leaching from ore-processing sites;Discharge from electronics,glass and drug factories	200	200	nd	10/10/1995
1,1.2-Trichloroethane (ppb)	Discharge from industrial chemical factories	3	5	nd	10/10/1995
Trichloroethylene (ppb)	Discharge from metal degreasing sites and other factories	0	5	nd	10/10/1995
Toluene (ppm)	Discharge from petroleum factories	1	1	nd	10/10/1995
Vinyl Chloride (ppb)	Leaching from PVC piping;discharge from plastics factories	0	2	nd	10/10/1995
Xylenes (ppm)	Discharge from petroleum factories;discharge from chemical factories	10	10	nd	10/10/1995
ADDITIONAL CONTAMINANTS					
Nickel (ppb)	Erosion from naturally occuring deposits;dischrge from nickel plating, storage batteries,magnets,electrodes and spark plugs	n/a	n/a	nd	4/28/1998